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ABSTRACT

A South Dakota State University model for developing student outcomes assessment plans in undergraduate family science programs is presented. This model consists of several steps: clarification of the departmental mission, goals, and objectives; specification of desired student outcomes; development of reliable, valid measures of student outcomes; and utilization of assessment data for curriculum review and revision. An exit exam was developed by a departmental assessment team at the university to assess the mastery of a common set of cognitive competence for all students completing the undergraduate major in child development and family relations. It was given to students within this major then revised and critiqued for reliability. Other assessment tools necessary for the implementation of a comprehensive assessment program are noted, including performance evaluations, senior capstone projects, placement information, practicum evaluations, and student teaching evaluations. Seven recommendations made for developing an assessment plan are: secure funding for the assessment planning program; identify and communicate the goals of the assessment plan; effectively utilize faculty resources; build upon the existing information; take a proactive approach; distinguish between undergraduate and graduate programs assessment; and keep communications open with university administration regarding expectations for and uses of assessment data. Contains 18 references. (SM)

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Assessing Excellence in Family Science Programs

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Running Head: ASSESSING EXCELLENCE

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Abstract

This paper presents a model for developing student outcomes assessment plans in undergraduate family science programs. The model for developing an assessment plan consists of several steps: clarification of the departmental mission, goals, and objectives; specifying desired student outcomes; development of reliable and valid measures of student outcomes; and the utilization of assessment data for curriculum review and revision. The purposes and benefits of the assessment are identified, with the focus on utilizing assessment for program improvement. Recommendations are made for developing an assessment plan including: funding the assessment program, identification of the goals and scope of the assessment plan, effective use of faculty resources and existing information, use of a proactive approach, and establishment of communication with administration.

Assessing Excellence in Family Science Programs

The quest for excellence in higher education programs is an issue of current concern for colleges and universities throughout the nation. Since the publication of reports that question the quality of education in America (Association of American Colleges, 1985; National Commission on Excellence in Education, 1983; Study Group on the Conditions of Excellence in American Higher Education, 1984), higher education programs have been scruitinized more closely.

As the emphasis upon academic excellence has increased, governing bodies (e.g., boards of regents, state governments) have sought clear evidence of quality in higher education programs. In a number of higher education institutions, the emphasis upon excellence has resulted in mandated assessment of higher education programs at both the university and departmental levels (Ewell & Boyer, 1988). If the trend toward required or recommended assessment of academic programs continues, an increased number of family science programs will face the challenge of revising their approaches to assessment and program evaluation. This paper presents the model used to assess the undergraduate family science program at South Dakota State University.

In order to address the issue of assessing excellence in family science programs, it is important to define excellence. Excellence, or quality, in higher education

programs has been defined in a variety of ways including: (1) reputation or the relative ratings of institutions and programs in the "hierarchy" of academia, (2) resources or the facilities and faculty available in institutions, (3) outcomes or measurable factors including lifetime earnings of graduates and the "production" of leaders in professions and society, (4) content as evaluated by professional organizations and accreditating agencies, and (5) the development of human talent or demonstrating that the educational program enhances the development of student skills and potential (Astin, 1985). In order to assess quality, a definition of excellence must be identified that complements the institutional and program goals.

Within academic departments, program evaluation has traditionally relied upon periodic accreditation studies, site visits, and self-studies. In contrast, the current assessment trend has emphasized student outcomes assessment, or assessing student performance, toward one or a combination of these goals: (1) program improvement, (2) gatekeeping (i.e., determining student performance before admission into or exit from specific programs), and (3) budget decisions and accountability (Halpern, 1987). Within this paper, the focus is on utilizing assessment for program improvement.

Purpose of Assessment

The primary purpose of undergraduate program assessment at the departmental level is to provide institutions, colleges, departments, faculty, students, and the community with information concerning the quality of a program. Through developing comprehensive assessment programs, family science departments can define the fundamental knowledge and skills in the discipline, the desired components of curriculum, and the effectiveness of an academic program. For family science programs to effectively evaluate and communicate the quality of their programs, the task of developing reliable and valid measures that identify program strengths and weaknesses needs to be addressed. These measures, in turn, can be used to enhance program effectiveness.

Benefits of Assessment

The benefits of program assessment at the departmental level include: to provide a database to demonstrate accountability to constituent groups, to supplement strategic planning and other long-range planning efforts, to provide information for recruitment and more effective retention, to improve public relations, and to enhance fundraising efforts (Banta & Moffett, 1987; Krueger & Heisserer, 1987; Rossman & El-Khawas, 1987). Further, assessment facilitates the readiness of a department for accreditation studies (Banta & Moffett, 1987).

The benefits of assessment are also evident in program development and evaluation (Dressel, 1980). Assessment data provides a foundation for academic introspection, clarifying program goals and objectives, stimulating curriculum reform, and enhancing the teaching and learning environment (Banta & Moffett, 1987; Krueger & Heisserer, 1987; Rossman & El-Khawas, 1987). Evidence is available to indicate that student services may also be improved as the result of assessment data (Banta & Moffett, 1987; Krueger & Heisserer, 1987).

A Model of Departmental Assessment

The process of developing a comprehensive, multiple measures assessment plan for an undergraduate program is a challenging, yet vital task. One model for assessing family science programs has evolved in the Child Development and Family Relations Department at South Dakota State Univesity in response to the South Dakota Board of Regents mandate for comprehensive assessment of programs at the state's six public colleges and universities (South Dakota Board of Regents'Assessment Committee, 1987). The assessment model presented in this paper was developed for the undergraduate major in Child Development and Family Relations. In accordance with the goals of the South Dakota Board of Regents' plan, a comprehensive assessment plan for the graduate program will be developed at a later date, using a similar approach.

Organizing the Assessment Effort

A departmental assessment team was established to coordinate the development of an assessment plan for the undergraduate major in Child Development and Family Relations. After reviewing procedures for program evaluation in light of the Regents' goals for assessment (South Dakota Board of Regents' Assessment Committee, 1987), the team identified several steps to guide the development of a comprehensive departmental assessment program. The first step in the assessment process was to identify the departmental mission, program goals, and program objectives (Harris, 1986). Since the mission statement, goals, and objectives serve as the foundation of the curriculum, it was determined that the assessment plan would be designed to test the extent to which students completing the curriculum met the identified student outcomes. The second step was to identify student outcomes (i.e., cognitive and skill competencies) that were consistent with the program goals and objectives. The third step was to develop reliable and valid measures to assess each competency area. The fourth step was to use input from the assessment process to provide feedback for curriculum review and revision. Finally, it was detemined that the assessment measures would be refined on a regular basis.

Assessment of the Cognitive Domain

To date, the focus of assessment has been on the development of a departmentally developed exit exam to assess the cognitive domain. Additional measures are being developed to assess the skills of students completing the program. The process of developing the exit exam is described in this section.

The departmental assessment team discussed the issue of whether the exit exam should be norm-based exit exam or criterion-based. If the goal had been to assess the performance of South Dakota State University family science undergraduates in relation to a national norm, a norm-based exam would have been developed. However, the goal was to assess the level of student mastery of specific areas of knowledge, so a criterion-based exit exam was developed (Mehrens & Lehmann, 1984).

Undergraduate majors in Child Development and Family Relations at South Dakota State University select one of six options/concentrations (i.e., Early Childhood Education, Early Childhood/Elementary Education, Religious Services, Children's Services in Hospitals, Social Services, Family and Youth Organizations) to prepare for their specific career goals. Students in all options take a set of common core classes. The purpose of the departmentally-developed exit exam was to assess the mastery of a common set of cognitive competence for all students completing the

undergraduate major in Child Development and Family Relations.

Beginning with a review of the Child Development and Family Relations departmental mission statement, goals, and objectives, common content themes were identified across the curriculum. After reviewing the core courses in the curriculum, the departmental assessment team developed areas of cognitive competence for graduates. Faculty in the department met to refine, prioritize and weight the areas of competence to reflect the departmental goals and objectives. The following areas of knowledge emerged from the departmental curriculum as common areas of knowledge for all Child Development and Family Relations graduates:

1. The historical background of child development and family relations.
2. Basic concepts of human development theories (Learning Theory, Developmental, Human Ecological, Psychoanalytic).
3. The stages and developmental tasks of individuals throughout the life cycle (Prenatal, Infancy, Toddlerhood, Preschool, School-age, Adolescence, Adulthood, Aging) including basic concepts in the physical, cognitive, and socioemotional domains of development.

4. Basic concepts of family relations theories: Exchange, Family Crisis, Family Developmental, Human Ecological, Symbolic Interaction, Family Systems, Structural-Functional).
5. The stages and developmental tasks of families across the life cycle (Unattached Adult, Newly Married, Childbearing, Children, Adolescence, Launching, Post-Parental).
6. Principles of marital and family interactions (Communication, Conflict and Problem-Solving, Power, Family Abuse, Marital Quality, Couple Interactions, Sexuality, Sex Roles, Parent-Child Interactions, Family Forms, Cultural and Economic Influences).
7. Basic concepts of the research and evaluation process.
8. Principles of program planning, implementation, and evaluation.
9. Services and programs available for individuals and families (Early Childhood Education, Parent Education, Marital and Family Enrichment, Social Services) and professional skills for providing these services and programs (Program Planning, Implementation and Evaluation, Interpersonal

Skills, Needs Assessment, Professional Ethics, and Child Guidance).

10. The integration of concepts from other areas of Home Economics (Management, Nutrition, Textiles, Clothing, and Interior Design) with Child Development and Family Relations.

Developing the Exit Exam. It was determined that the first nine areas of knowledge would be assessed through a departmental exit exam. The tenth area of knowledge (i.e., the integration of concepts from other areas of home economics) would be assessed at the college level, rather than the departmental level since similar competencies would be expected of all students completing undergraduate majors in the College of Home Economics.

From the remaining nine areas of knowledge, an item-bank of 650 multiple choice and matching items was developed. The bank consisted of items selected from course examinations used within the department and items written or revised by departmental faculty. The items were categorized according to the nine areas of knowledge. From the original item bank, the departmental assessmente team chose approximately 230 items to be further screened by departmental faculty to determine the degree to which the items sampled the domains of knowledge. The number of items selected from each area of competence was established

according to the previously established weights of importance in each area of competence.

To assess the face validity of items, departmental faculty rated the 230 items on a Likert scale with five response categories (1 = Very Poor, 2 = Poor, 3 = Acceptable, 4 = Good, 5 = Very Good). Approximately 175 items were rated 3 or above and were retained for further consideration. These 175 items were submitted to a validity panel to determine content validity. The validation panel was composed of six professionals in the professional areas relating to Child Development and Family Relations (i.e., one Child Development faculty member, one Family Relations faculty member, the Child Development and Family Relations department head, and two individuals from the private sector in professional fields relating to family science.

Using a Likert scale (1 = Very Poor, 2 = Poor, 3 = Acceptable, 4 = Good; 5 = Very Good) each of the panel members rated the items according to the following criteria: (a) clarity and readability of the item; (b) representation of the overall subject area, and (c) appropriate grouping of items in the subscales. Mean rating scores were established based upon the ratings of the panel members. Items with mean scores of 3 or above were utilized and/or revised as suggested by the panel members. Based on recommendation of the validity panel, the initial exit exam. consisting of 110 items, was developed by the departmental assessment team.

The items were distributed in nine subscales according to the relative weights determined by the departmental faculty (i.e., Historical Scale, 5 items; Human Development Theories Scale, 16 items; Human Development Scale, 18 items; Family Theories, 13 items; Family Life Cycle Scale, 10 items; Family Interaction Scale, 19 items; Research and Evaluation Scale, 10 items; Services and Programs Scale, 10 items; Professional Skills Scale, 9 items).

Administering the Exit Exam. The initial exit exam was administered during the Spring of 1987 to students enrolled in a junior level course required for all Child Development and Family Relations majors (n = 21). This group took the exam during a two-hour class session. The exit exam was also administered to all Child Development and Family Relations majors who planned to graduate from the Spring of 1987 through the Spring of 1988 (n = 46). The graduating students were required to take the exit exam during special two-hour sessions in the semester they planned to graduate.

Reliability of the Exit Exam. Internal consistency reliability coefficients (Cronbach's alphas) were established for each subscale. It was determined that subscales resulting in reliability coefficients (Cronbach's alphas) of .60 or above would be considered reliable and those receiving lower reliability would be refined. For the purposes of later curriculum review, the human development scale was analyzed as three subscales: cognitive/language

development, physical development, and social-emotional development. The remaining scales were analyzed using the items in each area of competence.

After the exit exam was administered during the Spring of 1988, the results from the 21 juniors and 46 graduating seniors (n = 67) were analyzed to determine the internal consistency reliability coefficients (Cronbach's alphas) for the sub-scales. In addition, item analyses were conducted. Based upon the inital criteria of all scales reaching a reliability coefficient of .60, it was clear that the overall exit exam had high reliability, but the subscales needed refinement.

Refining the Exit Exam. During the Summer of 1988, the authors of the exam refined the exit exam. Three basic concerns were addressed: (1) the construction of exam items (as indicated by an item analysis), (2) the reliability of the subscales, and (3) the extent to which higher level thinking skills were measured. Some items were retained, others were discarded and replaced with new items, others were reworked either by rewording the stem or making distracters stronger.

After the first version of the departmental exit exam was developed to assess the knowledge of graduating students in the nine domains of knowledge, the focus of assessment at South Dakota State University moved toward an increased emphasis upon assessing higher level thinking skills. The

shift in emphasis demonstrated the lack of items that assessed higher level thinking skills. While refining the exam, the departmental assessment team used Bloom's (1956) taxonomy of learning as a guide to examining the level of learning (i.e., knowledge, comprehension, application, analysis, synthesis, evaluation) assessed by each item. In addition to refining items to reflect a broader range of learning, an additional section was added to more specifically assess higher level thinking skills.

After the two authors revised the exam, all departmental faculty were asked to review the revised exam and make recommendations for improvements. After receiving feedback from faculty, the assessment team reworked questions and sent the exam to an outside reviewer for a critique. Comments of the outside reviewer, a faculty member in a similar program at another institition, will be incorporated before the revised version is administered.

When sufficient results are obtained, reliability for the revised exam and subscales will be examined and item analysis will be utilized to further refine the exit exam. When the exit exam is refined to the point of reliability on all subscales attaining a reliability coefficient (Cronbach's alpha) of at least .60, results of the exit exam will be used for curriculum review and revision. Strengths and weaknesses in the curriculum are expected to emerge

based on the degree to which students have mastered the areas of cognitive competence.

Other Assessment Tools

The majority of departmental assessment so far has focused upon development of the exit exam to assess student outcomes in the cognitive domain. However, a comprehensive assessment program requires the measurement of skills as well as cognitive domain. Multiple meausres are needed to obtain a more comprehensive assessment of an academic program. In order to evalute students' skills, additional assessment tools need to be designed and implemented.

The departmental assessment team at South Dakota State University is currently in the process of revising existing evaluations of student skills from student teaching and practicums to provide data for program assessment. These instruments were previously used only for evaluation of individual student progress and are being adapted for use in program evaluation.

Additional measures are being considered to assess the skills and attitudes of students. Specific measures that may be utilized include: performance evaluations; senior capstone projects; interviews or surveys of students, alumni, and/or employers; oral examinations; placement information; practicum evaluations; or student teaching evaluations.

The overall South Dakota State University assessment plan also both the assessment of departmental programs and the general education program. The ACT scores of incoming freshmen students, along with the results from a senior-level assessment instrument (still being piloted) will be utilized to assess the general education component of undergraduate education. The purpose of the comparison is to assess to what extent graduating seniors have achieved the qualities of an education and the expected learning outcomes as identifeid by the Academic Senate. In addition, a variety of surveys are used to assess the perceptions of the quality of educational experiences for freshmen, seniors, continuing students, non-returning students and alumni (South Dakota State University Assessment and Testing Office, 1988). At a later stage of the assessment process these results can be used in combination with departmental assessment results.

Recommendations for Developing an Assessment Plan

Based upon the experiences of the authors and others (Banta & Moffett, 1987; Ewell & Boyer, 1988; Halpern, 1987b), several recommendations for developing departmental assessment plans have evolved:

1. Secure funding for the assessment planning and program. A major challenge when developing a departmental assessment plan is how to fund the program. Expenses include time and effort, materials for developing exams or

fees for standardized exams, workshops to train faculty in assessment, and related expenses. Generally, funds are not available within the regular departmental budget, thus additional funding (internal or external) is necessary.

In the South Dakota State University model, faculty time and effort is an essential element in developing an assessment program. In order to compensate faculty (at least in part) for their time and effort, some funding or release time is necessary. At times, faculty members have been assigned or asked to develop and implement departmental assessment plans in addition to an already full workload. When no compensation (e.g., time and/or money) is available, faculty morale and committment to the endeavor may be lacking.

2. Identify and communicate the goals of the assessment plan. Although goals may be identified beyond the department (e.g., board of regents, university, college, state government), the department can adapt the goals to better utilize the process and products of assessment. Specific issues to clarify include: (a) how are the assessment results to be used; (b) are standardized measures or curriculum measures most appropriate; and (c) will the assessment focus on knowledge, skills, attitudes, or a combination of these?

3. Effectively utilize faculty resources. Frequently, faculty within a family science department will have

training and/or experience in assessment. By incorporating assessment planning into the workloads of such faculty, the quality of assessment programs can be enhanced.

Further, for the assessment to really be utilized by the faculty for curriculum review and enrichment, faculty must be included in the process. Faculty should be involved throughout the development of an assessment plan.

4. Build upon the existing information. Within a department, college, and university assessment data is often available. Information from incoming students, exit interviews, alumni, and accreditation studies can be utilized as a foundation for a departmental assessment plan.

5. Take a proactive approach, rather than waiting for mandated assessment. A proactive approach can facilitate positive program development and greater faculty support. In addition, departments than respond early to discussions of assessment may have the opportunity to shape university assessment plans.

6. Distinguish between undergraduate and graduate programs assessment. Assessment is a beneficial process for both undergraduate and graduate family science programs. However, an assessment plan should be targeted to the goals of a specific program. Although this paper focuses on undergraduate assessment, the model may be adapted to graduate program assessment.

7. Keep communications open with university administration regarding expectations for and uses of assesssment data. University administrators can be very helpful in providing support for assessment efforts, particularly if communication is ongoing. Sending information regarding progress, questions, and concerns to college and university administrators increases the accuerate dissemination of information and encourages feedback.

Crucial to the continued success and excellence of family science programs, assessment needs to be an integral part of the evaluation and planning processes. Due to the increased emphasis on student outcomes assessment, many family science departmental faculty may find themselves scrambling for assessment tools, because of the lack of nationally available assessment instruments. If one undertakes the task of developing a comprehensive, multiple measures assessment plan, with a proactive approach, utilization of existing resources, faculty involvment and a clear understanding of goals, the benefits of assessment can truly be utilized.

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